

CHAMBERS'S JOURNAL

OF
POPULAR

LITERATURE, SCIENCE, AND ART

Fifth Series

ESTABLISHED BY WILLIAM AND ROBERT CHAMBERS, 1832

No. 448.—VOL. IX.

SATURDAY, JULY 30, 1892.

PRICE 1½d.

THOMAS THE RHYMER.

WHAT Merlin the Prophet is to the Welsh, that Thomas the Rhymer is to the Scots. He is the *sacer vates* of Scotch tradition and history. His name, and the predictions associated with his name, are known and repeated in every district of Scotland. Though to Berwickshire is assigned the place of his birth, he is equally well known throughout all the Borders, from east to west. He is known in Strathclyde and Galloway, in the Highlands and Western Islands, along the north-eastern seaboard of Banff and Aberdeen, and among the peasantry of the Mearns, of Fife, and of the Lothians. There are few families of any antiquity or eminence, few castles or houses of distinction, but have attached to them some jingling rhyme or other, bearing upon their destiny, and attributed to the Rhymer. Some of these rhymes have the ring of antiquity about them, and are undoubtedly ancient; others smack of the modern method, and may be referred to the cunning or waggery of some local poetaster. But each and all of them serve to keep in memory a name that was long a name to conjure with in Scotland, and scarcely any great battle took place, or any striking crisis in the country's history occurred, but there was producible some vague oracular prediction of the Rhymer's, pointing to what had happened or was about to happen. That these predictions were in many instances manufactured to serve the purpose of the hour, goes without saying.

While Thomas the Rhymer, or 'True Thomas,' has his parallel in Merlin the Prophet, yet an important distinction must be drawn between them. The one comes down to us on the wave of tradition only; the other is distinctly an historical personage. We have no fact of history to which we can point as evidence that Merlin ever actually lived; he may have simply been rendered the living channel and embodiment of Cymric legends and traditions—the creation of the Cymric imagination. But of the existence of Thomas the Rhymer we have reasonable historical

proof; his place of residence is moreover linked with a definite locality, and this not by tradition, but by an existing title-deed to the property dating as far back as the close of the thirteenth century, and containing his own name and the name of his son and heir.

The name of the Rhymer's residence was Ercildoune, now Earlstoun, on the banks of the Leader, in Berwickshire. The vale of Leader is of singular beauty, and embraces within it many places whose names have been made memorable in Scottish song and story. The Leader takes its rise in the Lammern Moor Hills, and flows southward in devious and wilful wanderings till it merges itself in the Tweed. Here we have the St Leonard's Banks and Leader Haughs of the seventeenth-century minstrel Burn, who gave to Wordsworth the measure and rhythm of his three Yarrow ballads. This stanza might not have done discredit to Wordsworth himself, in the grace and fervour of its lyrical melody:

Sing Ercildoune and Cowdenknowes,
Where Humes had ance commanding,
And Drygrange, with its milk-white ewes,
"Twixt Tweed and Leader standing;
The bird that flees through Redpath trees
And Gladswood's banks each morrow,
May sing and sigh sweet Leader Haug's,
And bonny holms of Yarrow.

It is to a district so hallowed about with song and tradition that Thomas the Rhymer belongs. He 'flourished'—to adopt a time-honoured locution—in the later half of the thirteenth century, or, more specifically, from perhaps 1220 to about 1290. The first fact as to his existence which has been ascertained is in connection with the witnessing of a charter which was granted to the Abbot and Convent of Melrose by Thomas's near neighbour, Petrus de Haga of Bemersyde, an ancestor of the ancient family regarding whom the Rhymer is said to have predicted that

Tyde what may betide,
Haig shall be Haig of Bemersyde.

And the prediction still holds good after the lapse

of six hundred years. The deed referred to, and which we have seen and handled, is now the property of the Duke of Buccleuch. It is a little bit of yellow parchment, nine inches by six, with the writing as clear and distinct as at the day on which it was penned, and has the remains of two seals attached to it by little separate tags of parchment. The one seal is that of the grantor of the charter, Haig; the other is that of Abbot Oliver of Dryburgh, who heads the list of witnesses. Deeds of this nature were not witnessed then as such deeds are now—that is, by each witness subscribing his signature beneath the document. In those days, writing was not so common an accomplishment as now, and probably to avoid invidious distinctions among men of hot and aristocratic tempers, with swords by their side, the clerk who engrossed the deed simply wrote therein a list of the men who were then present, and who had witnessed the transaction entered upon and completed. The last name mentioned of those who stood around the table on this occasion is *Thomas Rimor de Erchildun*.

Here, then, we have one solid historical fact upon which to base the actual corporeal existence of 'True Thomas.' The charter in question is not dated; but as it is ascertainable through other historical channels that the above Oliver was Abbot of Dryburgh in 1262, and was still Abbot in 1268, we are able to approach very near to the actual date when the Rhymer witnessed the charter—say, between 1260 and 1270.

The next transaction which brings the Rhymer upon the page of actual history belongs to the year 1286, and in this instance we have him in his traditional character of prophet. Walter Bower, who was Abbot of the Monastery of Inchcolm—an island in the Firth of Forth—wrote, in the first half of the fifteenth century, a history of Scotland, in which he tells us how Thomas of Erchildoune foretold the calamitous death of King Alexander III. The Earl of Dunbar of those days had a great castle which stood about a mile to the east of Erchildoune, and under the protecting shadow of whose walls a village would naturally spring up; the name of which village—Earl's-town—has gradually supplanted the older and more poetical Erchildoune. Thomas, paying a visit to the Earl one day, was asked by him half-jocularly what was to happen on the morrow. The Rhymer, sighing deeply, said: 'Alas for the morrow, a day of calamity and misery! Before the twelfth hour shall be heard a blast so vehement as shall exceed all that have yet been heard in Scotland.' The alarming nature of this prediction led the Earl and his associates to watch the atmosphere closely next morning; but the sky gave no sign of any impending storm, and by the ninth hour they were becoming disposed to regard Thomas and his prediction with something like contempt. The Earl, however, had scarcely sat down to dinner, and the hand of the dial pointed the hour of noon, when a messenger arrived at the gate, bringing with him the tidings of the king's death, who in the darkness of the previous night had been killed by a fall from his horse while galloping along the sea-

shore near Kinghorn. 'This,' said Thomas, 'is the wind that shall blow to you the great calamity and trouble of all Scotland.' And so of a surety it did; for it led to the disputed succession in the sovereignty of the kingdom, to the interference of Edward I. of England, to the long wars of Wallace and Bruce, the storm ending only in the victory of Bannockburn. 'This Thomas,' says a later chronicler, 'was a man of great admiration to the people, and showed sundry things as they fell. Howbeit,' he quaintly adds, 'they were aye hid under obscure words.'

The Rhymer is next referred to in an authentic document of the date 1294, in which his son, who styles himself 'Thomas of Erchildoun, son and heir of Thomas Rymour of Erchildoun,' conveys to a neighbouring charity all the lands which he held by inheritance in the village of Erchildoune. What the object of the younger Thomas was in thus divesting himself of his inheritance is not stated in the deed. But the natural inference is, that before this time, and before the son had entered on his inheritance, his father, True Thomas, was dead. Blind Harry, in his rhymed life of Wallace, represents the Rhymer as still alive in 1296 or 1297; but no one who knows the blind poetaster's method of writing history would give the slightest weight to his authority, as against a document which, on the face of it, presupposes that the Rhymer was dead previous to November 1294.

But while history has thus substantiated for us the actual existence and personality of Thomas the Rhymer, it has not informed us either as to the precise year of his death or as to the manner of it. But here tradition steps in and tells the story in a way more picturesquely and poetically than we should have had it from history. In view, moreover, of the methods of tradition, it is not quite consistent to speak of the Rhymer's 'death'; for, according to this type of legend, men like Merlin and Arthur and True Thomas do not die—they only pass from the sight of men for a time. Hence we have 'The passing of Arthur'—not his death—as he goes 'a long way' to the island valley of Avilion,

Where falls not hail, or rain, or any snow,
Nor ever wind blows loudly.

And tradition expected that he should once more return; as it, too, expected Merlin's release from the fatal spell woven round him by the wily Vivien.

And as tradition dealt with those, so it dealt with Thomas the Rhymer. The manner of his 'passing' was thus. At an early age he had been carried off to Fairy Land as the lover of the Fairy Queen, and while there had acquired his miraculous gifts of knowledge and of prophecy. At the end of seven years he was warned that it was time for him to return to earth; but his mistress made it a condition that he should come back to her when it pleased her to recall him from earth. One day, therefore, while Thomas sat in his house of Erchildoune, feasting and making merry with his friends, a person entered, and in a state of wonder and fear, informed him that a hart and hind from the neighbouring forest were 'composedly and slowly parading the street of the village. The prophet instantly rose, left his

habitation, and followed the wonderful animals to the forest, whence he was never seen to return. According to the popular belief, he still "drees his weird" in Fairy Land, and is one day expected to revisit earth.

How far the actual sayings and doings of the Rhymer when on earth justified the extraordinary reputation which he obtained for his mingled gifts as a prophet and a poet, it is impossible now to say; but that that reputation was well established before his death is proved by the fact that a manuscript exists containing a prophecy said to be uttered by him, and which manuscript must have been written before 1320, probably before 1314, or within thirty years after his death. There are still extant two poems which have been ascribed to him. His authorship of one of these, called *Sir Tristram*, is more than doubtful; but the first portion of the other poem claimed for him—and which tells how he saw the Fairy Queen riding down by the Eildon tree, how he had kissed her lips, and how he wended his way with her to Fairy Land—may not improperly be regarded as his. The antique language in which it is couched will debar many readers from enjoying it; but, as poetry, it is of high quality, instinct with the colour and movement of life, with strong imaginative effects, and in places fervid with passion. The popular version of it which Scott received from a lady who resided near Ercildoune, and which he collated with another version in Mrs Brown's possession, may be regarded as a good paraphrase of the original poem composed by one who was familiar with that original.

True Thomas lay on Huntlie Bank;
A ferlie he spied wi' his e'e;
And there he saw a ladye bright,
Come riding down by the Eildon tree.
Her skirt was o' the grass-green silk,
Her mantle o' the velvet fyne;
At ilka tett of her horse's mane
Hung fifty siller bells and nine.

True Thomas hailed the fair lady with all a poet's gallantry. She told him she was the 'Queen of fair Elfland;' and he, in spite of her warning as to the consequences to himself, 'kissed her rosy lips, all underneath the Eildon tree.'

'Now, ye maun go wi' me,' she said;
'True Thomas, ye maun go wi' me;
And ye maun serve me seven years,
Through weal or woe as may chance to be.'

She mounted on her milk-white steed;
She's ta'en true Thomas up behind;
And aye, when'er her bridle rung,
The steed flew swifter than the wind. . . .

O they rade on, and farther on,
And they waded through rivers aboon the knee,
And they saw neither sun nor moon,
But they heard the roaring of the sea.

It was mirk mirk night, and there was nae sterner light,
And they waded through red blood to the knee;
For a' the blood that is shed on earth
Rins through the springs o' that countrie.

At the end of Thomas's services in Elfland, the Queen once more guides him back to earth, and offers him, as wages, the gift of 'the tongue that can never lie.' 'A goodly gift ye would gie to me,' replied Thomas, not having quite forgotten after his long absence what manner of place the

earth is. What use to a man among men would be 'the tongue that can never lie?'

'I neither dought to buy nor sell,
At fair or tryst where I may be.'

The situation is a little confused in the popular version, but is clear enough in the original poem. Scott himself has put in verse the Rhymer's final departure with the hart and hind:

Some said to hill, and some to glen,
Their wondrous course had been;
But ne'er in haunts of living men
Again was Thomas seen.

J. R.

THE IVORY GATE.*

BY WALTER BESANT.

CHAPTER XXIX.—'I KNOW THE MAN.'

'ANOTHER evening of mystery, Elsie?' said Athelstan.

'Yes. Another, and perhaps another. But we are getting to an end. I shall be able to tell you all to-day or to-morrow. The thing is becoming too great for me alone.'

'You shall tell us when you please. Meantime, nothing new has been found out, I believe. Checkley still glares, George tells me. But the opinion of the clerks seems on the whole more favourable, he believes, than it was. Of that, however, he is not perhaps a good judge.'

'They shall all be turned out,' cried Elsie. 'How dare they so much as to discuss'—

'My sister, it is a very remarkable thing, and a thing little understood, but it is a true thing. People, people—clerks and *le Service* generally—are distinctly a branch of the great human tribe. They are anthropoid. Therefore, they are curious and prying and suspicious. They have our own faults, my dear.'

All day Elsie felt drawn as with ropes to Mr Dering's office. Was it possible that after that long evening among the lessons of Poverty Lane he should remember nothing? How was she to get at him—how was she to make him understand or believe what he had done? Could she make the sane man remember the actions and words of the insane man? Could she make the insane man do something which would absolutely identify him with the sane man? She could always array her witnesses: but she wanted more: she wanted to bring Mr Dering himself to understand that he was Mr Edmund Gray.

She made an excuse for calling upon him. It was in the afternoon, about four, that she called. She found him looking aged, his face lined, his cheek pale, his eyes anxious.

'This business worries me,' he said. 'Day and night it is with me. I am persecuted and haunted with this Edmund Gray. His tracts are put into my pockets; his papers into my safe: he laughs at me: he defies me to find him. And they do nothing. They only accuse each other. They find nothing.'

'Patience,' said Elsie softly. 'Only a few

days—a day or two—then—with your help—we will unravel all this trouble. You shall lose nothing.'

'Shall I escape this mocking devil—this Edmund Gray?'

'I cannot promise. Perhaps.—Now, my dear guardian, I am to be married next Wednesday. I want you to be present at my wedding.'

'Why not?'

'Because things have been said about George: and because your presence will effectually prove that you do not believe them.'

'Oh! Believe them? I believe nothing. It is, however, my experience that there is no act, however base, that any man may not be tempted to do.'

'Happily, it is my experience,' said the girl of twenty-one, 'that there is no act of baseness, however small, that certain men could possibly commit. You will come to my wedding, then. Athelstan will give me away.'

'Athelstan? Yes; I remember. We found those notes, didn't we? I wonder who put them into the safe? Athelstan! Yes. He has been living in low company, I heard—Camberwell.—Rags and tatters.'

'Oh! Elsie stamped impatiently. 'You will believe anything—anything, and you a lawyer! Athelstan is in the service of a great American journal.—Rags and tatters!'

'American? Oh! yes.' Mr Dering sat up and looked interested. 'Why, of course. How could I forget it. Had it been yesterday evening, I should have forgot. But it is four years ago. He wrote to me from somewhere in America. Where was it? I've got the letter. It is in the safe. Bring me the bottom right-hand drawer. It is there, I know.' He took the drawer which Elsie brought him, and turned over the papers. 'Here it is among the papers of that forgery. Here is the letter.' He gave it to Elsie. 'Read it. He writes from America, you see. He was in the States four years ago—and—and— What is it?'

'Oh!' cried Elsie, suddenly springing from her chair—'Oh! Do you know what you have given me? Oh! do you know what you have told me? It is the secret—the secret—of my fortune. Oh! Athelstan gave it to me—Athelstan—my brother!'

Mr Dering took the letter from her and glanced at the contents. 'I ought not to have shown you the letter,' he said. 'I have violated confidence. I forgot. I was thinking of the trouble—I forgot. I forget everything now—the things of yesterday as well as the things of today. Yes; it is true, child: your little fortune came to you from your brother. But it was a secret that he alone had the right to reveal.'

'And now I know it—I know it. Oh! what shall I say to him?' The tears came in her eyes. 'He gave me all he had—all he had—because—oh! for such a simple thing—because I would not believe him to be a villain. Oh! my brother—my poor brother! He went back into poverty again. He gave me all—because—oh! for such a little thing!—Mr Dering!' She turned almost fiercely upon him. 'After such a letter, could you believe that man to be a villain? Could you? Tell me! After such a deed and such a letter!'

'I believe nothing. My experience, however,

tells me that any man, whoever he is, may be led to commit'—

'NO! I won't have it said again.—Now, listen, Mr Dering. These suspicions must cease. There must be an end. Athelstan returned six weeks ago—or thereabouts. That can be proved. Before that time, he was working in San Francisco on the journal. That can be proved. While these forgeries, with which he is now so freely charged, were carried on here, he was abroad. I don't ask you to believe or to disbelieve or to bring up your experience—oh! such experience—one would think you had been a police magistrate all your life.'

'No, Elsie.' Mr Dering smiled grimly. 'There was no need to sit upon the bench; the police magistrate does not hear so much as the family solicitor. My dear, prove your brother's innocence by finding out who did the thing. That is, after all, the only thing. It matters nothing what I believe—he is not proved innocent—all the world may be suspected of it—until the criminal is found. Remove the suspicions which have gathered about your lover by finding the criminal. There is no other way.'

'Very well, then. I will find the criminal, since no one else can.'

Mr Dering went on without heeding her words.

'They want to get out a warrant against Edmund Gray. I think, for my own part, that the man Edmund Gray has nothing to do with the business. He is said to be an elderly man and a respectable man—a gentleman—who has held his chambers for ten years.'

'They need not worry about a warrant,' Elsie replied. 'Tell your brother, Mr Dering, that it will be perfectly useless. Meantime—I doubt if it is any good asking you—but—if we want your help, will you give me all the help you can?'

'Assuredly. All the help I can. Why not? I am the principal person concerned.'

'You are, indeed,' said Elsie gravely—'the principal person concerned. Very well, Mr Dering—now I will tell you more. I know the—the criminal. I can put my hand upon him at any moment. It is one man who has done the whole, beginning with the cheque for which Athelstan was suspected—one man alone.'

'Why, child, what can you know about it? What can you do?'

'You were never in love, Mr Dering—else you would understand that a girl will do a great deal—oh! a great deal more than you would think—for her lover. It is not much to think for him and to watch for him—and for her brother—the brother who has stripped himself of everything to give his sister!'

She was fain to pause, for the tears which rose again and choked her voice.

'But, Elsie—what does this mean? How can you know what no one else has been able to find out?'

'That is my affair, Mr Dering. Perhaps I dreamed it.'

'Do you mean that you will get back all the papers—all the transfers—the dividends that have been diverted—everything?'

'Everything is safe. Everything shall be restored.—My dear guardian, it is a long and

a sad story. I cannot tell you now. Presently, perhaps. Or to-morrow. I do not know how I shall be able to tell you. But for your property, rest easy. Everything will come back to you—everything—except that which cannot be stored in the vaults of the Bank.'

The last words he heard not, or understood not.

'I shall get back everything!' The eyes of the Individualist lit up and his pale cheek glowed—old age has still some pleasures. 'It is not until one loses Property that one finds out how precious it has become. Elsie, you remember what I told you, a day or two ago. Ah! I don't forget quite everything—a man is not the shivering naked soul only, but the complete figure, equipped and clothed, armed and decorated, bearing with him his skill, his wit, his ingenuity, his learning, his past, and his present, his memories and his rejoicings, his sorrows and his trials, his successes and his failures, and his Property—yes—his Property. Take away from any of these things, and he is mutilated: he is not the perfect soul. Why, you tell me that my Property is coming back—I awake again. I feel stronger already; the shadows are flying before me: even the terror of that strange forgetfulness recedes: and the haunting of Edmund Gray. I can bear all, if I get my Property back again. As for this forger—this miscreant—this criminal—you will hale him before the judge!'

'Yes—yes. We will see about the miscreant afterwards. The first thing is to find the man and recover your Property, and to dispel the suspicions resting on innocent persons. If I do the former, you must aid me in the latter.'

'Assuredly. I shall not shrink from that duty.'

'Very well.—Now tell me about yourself. Sometimes it does good to talk about our own troubles. Tell me more about these forgetful fits. Do they trouble you still?' Her eyes and her voice were soft and winning. One must be of granite to resist such a voice and such eyes.

'My dear'—Mr Dering softened. 'You are good to interest yourself in an old man's ailments. It is Anno Domini that is the matter with me. The forgetful fits are only symptoms—and the disease is incurable. Ask the oak why the leaves are yellow.—It is the hand of winter. That is my complaint. First the hand of winter, then the hand of Death. Meantime, the voice of the grasshopper sings loud and shrill.' In presence of the simple things of age and death, even a hard old lawyer grows poetic.

'Tell me the symptoms, then. Do you still forget things?'

'Constantly. More and more. I forget everything.'

'Where were you yesterday evening, for instance?'

'I don't know. I cannot remember. I have left off even trying to remember. At one time I racked my brains for hours, to find out, and failed. Now I remember nothing. I never know when this forgetfulness may fall upon me. At any hour.—For instance—you ask me about yesterday evening. I ordered dinner at home. My housekeeper this morning reminded me that I did not get home last night till eleven. Where was I? Where did I spend the evening?'

'At the Club?'

'No—I took a cab this morning and drove there under pretence of asking for letters. I asked if I was there last night. The hall porter stared. But I was not there. I thought that I might have fallen asleep here. I have done so before. Checkley tells me that I went away before him. Where was I?—Child!—he leaned forward and whispered, with white cheeks—'I have read of men going about with disordered brains doing what they afterwards forget. Am I one of these unfortunates? Do I go about with my wits wandering? Oh! horrible! I picture to myself an old man—such as myself—of unblemished reputation and blameless life—wandering about the streets demented—without conscience—without dignity—without self-respect—committing follies—things disgraceful—even things which bring men before the law'—He shuddered. He turned pale.

'No—no,' murmured Elsie. 'You could not. You could never'—

'Such things are on record. They have happened. They may happen again. I have read of such cases. There was a man once—he was like myself—a Solicitor—who would go out and buy things, not knowing what he did. He bought new hats—every day twenty new hats—cricket bats, though he was long past the game of cricket: once he bought six grand pianos—six—though he knew not the use of any instrument. Then they gave him a companion, and he found out what he had done. The shame and the shock of it killed him. I have thought of that man of late. Good Heavens! Think, if you can, of any worse disaster. Let me die—let me die, I say, rather than suffer such a fate—such an affliction. I see myself brought before the magistrate—me—myself—at my age, charged with this and with that. What defence? None, save that I did not remember.'

'That could never be,' said Elsie confidently, because she knew the facts. 'If such a thing were to befall, your character would never be changed. You might talk and think differently, but you could never be otherwise than a good man. You to haunt low company? Oh! you could not even in a waking dream. People who dream, I am sure, always remain themselves, however strangely they may act. How could you—you—after such a life as yours, become a haunter of low company? One might perhaps suppose that Athelstan had been living among profligates because he is young and untried—but you?—you? Oh! no. If you had these waking dreams—perhaps you have them—you would become—you would become—I really think you would become'—she watched his face—'such—such a man as—as—Mr Edmund Gray, who is so like yourself, and yet so different.'

He started. 'Edmund Gray again? Good Heavens! It is always Edmund Gray!'

'He is now a friend of mine. I have only known him for a week or two. He does not think quite as you do. But he is a good man. Since, in dreams, we do strange things, you might act and speak and think as Edmund Gray.'

'I speak and think as— But—am I dreaming? Am I forgetting again? Am I awake? Edmund Gray is the man whom we want to find.'

'I have found him,' said Elsie quietly.

'The forger—if he is the forger'—

'No—no. Do not make more mistakes. You shall have the truth in a day or two. Would you like to see Edmund Gray? Will you come with me to his Chambers? Whenever you call, you—you, I say—will find him at home.'

'No—no. I know his doctrines—futile doctrines—mischievous doctrines. I do not wish to meet him. What do you mean by mistakes? There are the letters—there are the forgeries. Are there two Edmund Grays?'

'No—only one. He is the man they cannot find. I will show you, if you like, what manner of man he is.'

'No. I do not want to see a Socialist. I should insult him.—You are mysterious, Elsie. You know this man, this mischievous doctrinaire—this leveller—this spoliator. You tell me that he is a good man—you want me to see him. What, I ask, do these things mean?'

'They mean many things, my dear guardian. Chiefly they mean that you shall get back your Property, and that suspicion shall be removed from innocent persons—and all this, I hope before next Wednesday, when I am to be married. We must all be happy on my wedding day.'

'Will—will Mr Edmund Gray be there as well?'

'He has promised.—And now, my dear guardian, if you will come round to Gray's Inn with me, I will show you the Chambers of Mr Edmund Gray.'

'No—no. Thank you, Elsie—I do not wish to make the personal acquaintance of a Socialist.'

'He has Chambers on the second floor. The principal room is large and well furnished. It is a wainscoted room with two windows looking on the Square. It is not a very pretty Square, because they have not made a garden or laid down grass in the middle—and the houses are rather dingy. He sits there in the evening. He writes and meditates. Sometimes he teaches me, but that is a new thing. In the morning he is sometimes there between nine o'clock and twelve. He has an old laundress, who pretends to keep his rooms clean.'

She murmured these words softly, thinking to turn his memory back and make him understand what had happened.

'They are pleasant rooms, are they not?' He made no reply—his eyes betrayed trouble. She thought it was the trouble of struggling memory.—'He sits here alone and works. He thinks he is working for the advancement of the world. There is no one so good, I think, as Edmund Gray.'

He suddenly pushed back the chair and sprang to his feet.

'My Scholar! You speak of me?'

It was so sudden that Elsie cried out and fell backwards in her chair. She had brought on the thing by her own words, by conjuring up a vision of the Chambers. But—the trouble was not the struggle of the memory getting hold of evasive facts.

'Why, child,' he remonstrated, 'you look pale. Is it the heat? Come, it is cooler outside. Let us go to the Chambers in Gray's Inn. This old fellow—this Dering—here he sits all day long.

It is Tom Tiddler's ground. It is paved with gold, which he picks up. The place—let us whisper—because he must be in the outer office—it reeks of Property—reeks of Property.'

He took his hat and gloves. 'My Scholar, let us go.' With the force of habit, he shut and locked the safe and dropped the bunch of keys in his pocket.

(To be continued.)

A PENNY IN THE SLOT.

THE latest automatic novelty is a contrivance by which gas is supplied to small consumers on putting 'a Penny in the Slot.' We are all familiar with the bewildering development which has of late taken place in this system of retailing various commodities. At most railway stations and other public places there are automatic machines, which, if set agoing by the deposit of the essential coin, will show your height or weight, test your pulling strength, give you an electric shock, tell your fortune, or supply you on demand with a box of matches, packets of chocolate, confectionery, cigarettes, cigars, sheets of note-paper, postcards, postage stamps, or other articles of more or less utility. The same principle is now being applied to save householders of modest means from the recurrence of quarterly gas bills. In many towns the tenants of small houses have hitherto been deterred from using gas on account of the first cost and the periodical mode of payment. That difficulty is overcome by the prepayment meters, of which various types are being largely furnished in different towns by rival patentees and manufacturers. Their mechanism is said to be extremely simple, and such as can be readily attached to the top of any existing meter. All the consumer has to do is to turn a small handle, drop a penny in the slot, and the equivalent value in gas immediately has access to the meter. But the purchase need not be so limited. More than one penny can be deposited for larger supplies. Each meter, besides the automatic arrangement, comprises an ordinary register for every foot of gas consumed, the dial and pointer showing the quantity in reserve and how much has been expended. In Liverpool alone, more than four thousand of these new prepayment meters are now in successful daily use; indeed, there is some difficulty in supplying enough of them to meet the growing demand from that city, as well as from London, Manchester, Birmingham, Bolton, Blackburn, and other places.

Noteworthy as some of these automatic novelties are, they were equalled in cleverness and ingenuity by those of olden time. There is, however, one material difference. Nowadays they are being more and more applied to useful purposes, whereas during the boyhood of our grandfathers they were mainly designed to mystify or amuse. One of the most perfect of the machines which used to puzzle and entertain our ancestors was constructed by M. Vaucanson, and exhibited at Paris in 1738. It represented a flute-player, which placed its lips against the instrument, and produced the notes of twelve different tunes with its fingers, in the same manner as any human player. In 1741 he made a flageolet-player, which with one hand beat a

tambourine, playing twenty country-dances; and in the same year he produced a wonderful automatic duck. It was made to conduct itself on the water in every respect like its animated pattern. It swam, dived, ate, drank, dressed its wings, &c., as naturally as its live companions. Most wonderful of all, by means of a solution in the stomach it actually appeared to digest its food! This illusion was, however, exposed by Robert Houdin, the celebrated conjurer, into whose hands Vaucanson's duck was placed for repair. He found out that the so-called digestive process was brought about by a vulgar trick unworthy of its inventor, who was beyond doubt a clever mechanician.

A Swiss named Droz made for the king of Spain a sheep that bleated, and a dog which guarded a basket of fruit. If any of the fruit was taken away, the dog barked incessantly until it was replaced. He also made a singing bird; but it was quite eclipsed by another made by Maillardet.

Nothing is more difficult than to construct any mechanism to imitate the human voice. Attempts have, however, been made with some measure of success. A certain Abbé-Mical by name—is said to have made two large heads of brass which could clearly pronounce two or three complete sentences; but this is nothing to what Edison's phonographic dolls can now accomplish. Mical wanted the French Government to buy his speaking heads. The Government, however, declined to do so; and the unfortunate artist, burdened with debts, smashed them in a moment of despair, and died in a destitute state in 1786. Some years previously he had presented to the Science Academy at Paris two other heads which articulated syllables. They had an ingenious imitation of the human throat and vocal organs. Descartes constructed a clever automaton which represented the figure of a girl. He called it his daughter Francine. During a voyage the captain had the curiosity to open the box in which Francine was enclosed. His interference set the works going. This so alarmed him that he threw her into the sea, fearing she was an instrument of magic, or inspired by the devil.

The first automata actually authenticated do not date farther back than the beginning of the last century. But there are some traditions of marvels of the kind at a much earlier period. It is said, for instance, that an artificial eagle was constructed which flew before the Emperor Maximilian when he was entering Nuremberg. Roger Bacon is reported to have forged a brazen head which could speak some words, and acted in fact as a doorkeeper. It was broken to pieces by Aquinas. Knauss exhibited at Vienna an automaton which could write; but it was not equal to a long letter, and there was no variety in its composition. Two inventors named Kauffman and Maelzel made a couple of automatic trumpeters which could play several marches. One of the ancients is said to have made an iron fly, which could flutter round the room and return to his hand.

Returning to the more reliable records of modern times, some of our readers may remember the piping bullfinch which was first shown at the London Exhibition in 1851. It was a perfect example of those automata, now more numerous,

which imitate the movement and song of birds. It was contained in a box not much bigger than a snuff-box. When the spring was touched, a tiny bird sprang out, fluttered its wings, and trilled the true pipe of the bullfinch. The sound in reality came from the box, not from the bird itself. It was indeed an elaborate adaptation of the same principle as is applied to the mechanical cuckoo in the well-known Swiss clocks.

Of late years all previous efforts in the making of automata have been surpassed by Mr J. N. Maskelyne, who may be truly said to have commenced a new era in these marvels. His first one, *Psycho*, was introduced to public notice in January 1875. It was a seated figure of light construction, which moved its head, and from a rack in front of it chose the cards necessary for a hand at whist, which it played in a masterly manner. It also worked out calculations up to 100,000,000, showing the total in a box by opening a sliding door. It acted without any mechanical connection with anything outside of it, and yet was so much under control that it carried out orders, as if with intelligence. How it worked was a profound secret, even to Mr Maskelyne's assistants. In 1877 the same gentleman produced *Zoe*, another wonderful automaton. During the performance there was placed in front of it a sheet of drawing-paper upon which it traced the likeness of any public character chosen by the spectators from a list of two hundred names. Mr Maskelyne has constructed some automata which play upon musical instruments. Automatic chess-players have also been made. A remarkably clever one was exhibited some years ago at the Crystal Palace. Elaborate automata of the old style were very expensive, and the curiosity of the public was not sufficiently long sustained to repay the outlay. We have now reached a time when simpler and less complex mechanism is commonly applied in a practical way to more utilitarian purposes than in bygone times.

THE BELLS OF LINLAVEN.

CHAPTER V.—THE SACRIFICE.

EVENTS had moved rapidly that afternoon in Linlaven. Within the vicarage all was confusion and distress. When Clara recovered sufficiently to remember what had happened—the reading of the paper—the finding of the watch, which, she felt convinced, must have been her father's—the terror-stricken face of Uncle Giles as the report was read out—all came back to her vividly, and the first use which she made of her returning consciousness was to ask her husband to go and find that old man at once. She felt that she had read her fate in his face.

Captain Norham had left the house on this errand, when his attention was arrested by a rider coming rapidly down the drive from Brathrig Hall. It was Mr Brookes. He had been summoned to the death-bed of Dame Norham that morning, and now he had ridden down to the vicarage to say that all was over.

'What is to be done?' asked the Captain.

'Nothing can be done, so far as I can see,' replied the lawyer. 'Linley will have taken

possession by Monday, and the estates will go to a man who has scarcely any reasonable claim to them, except that he was remotely connected with the Norhams by the female line, and that the old lady has made a will in his favour.'

'But might not the will be disputed?—Look here.' And he took from his pocket the paper which Lawrence Dale had been reading from. He opened it, pointed to the paragraph, 'Remarkable Discovery,' and passed it to the lawyer.

Mr Brookes read the paragraph twice over carefully, and not without some expressions of astonishment. 'Extraordinary—startling—watch belonged to one Arthur Naseby—real name Arthur Norham—the first clue we have got to all this mystery.—But, George,' he said, turning to the Captain, 'this may all come to nothing. We cannot tell whether Arthur Norham is dead or alive—or, if dead, when he died. Then where are we?'

Captain Norham narrated to him what he and his wife had seen that afternoon as the paper was being read—the agitation of the old man who was a stranger in the place—also what he himself had seen in the church, as well as the fact that this man, when in his delirium, had called Clara by her mother's name.

'There is something strange, certainly, in all this.—Go, George, and find this man, and bring him to the vicarage. We must at least speak with him on the matter.'

Uncle Giles was not to be found. His cottage was empty. No one had seen him since afternoon. 'But, Captain,' said Mrs Dale, 'he often walks of an evening round the head of the lake to Langley Bridge, and he may ha' gone there now.'

The Captain walked off in the direction indicated; but he saw no one. He reached the bridge, and stood for a little upon it, meditating on the distracting events of the day. The sun had now set, and twilight was rapidly deepening. The silence was for a time unbroken save for the rushing sound of the brook as it swept beneath the bridge; then there came the sounds of hurrying footsteps. In a few minutes a man appeared, shouting something which in the distance the Captain was unable to catch. The man, however, instead of coming on straight towards him, turned up by the road that led to the church; and shortly thereafter the bells rang out from the tower with unwonted violence and clamour.

It at once occurred to Captain Norham that fire had broken out somewhere. Little did he know how terrible to his own heart and Clara's the result of that fire might be.

When he entered the village, all was turmoil, commotion, and alarm. The Old Grange was on fire. A woman was flying towards Lawrence Dale's cottage. It was Lucy Norham's nurse.

'Oh, Lawrence,' she cried, 'have you seen our Lucy? I have been out at tea at Millridge Farm, and when I came home she was not to be found.'

'I ha' not seen her, lass,' replied Lawrence, as he walked off towards the fire; 'but thou may keep thy mind easy. She be safe enough somewhere with old Giles.'

Captain Norham also hurried on towards the burning edifice, in front of which every living creature in the village had now congregated, the

women uttering loud exclamations of distress and alarm, and the men hurrying hither and thither, vainly suggesting expedients for checking the fire. When they saw Captain Norham approach, they waited for his directing hand.

'We cannot save the old building,' he said, after a quick survey of the situation; 'but its connection with the mill must be cut off.' And under his orders, some wooden and other temporary structures that had been erected between the Grange and the mill were forthwith torn down and removed by willing hands. Upon the Old Grange itself the fire had already got a firm hold; the ancient time-dried woodwork of its floors, with the various combustible materials stored in it, fed the fire with fierce rapidity, and in an almost incredibly short space of time the flames had burst forth from the lower range of windows, threatening the whole building with immediate destruction.

In this crisis Captain Norham felt a hand on his arm. It was Clara, with anxious eyes, asking if no one had seen Lucy.

'Miss Lucy?' said a bystander. 'She will be wi' Uncle Giles. I saw her a-seeking for him i' the afternoon.'

'No, ma'am,' said a lad who had overheard the conversation; 'Miss Lucy be not with Uncle Giles, for I saw him a-goin' up the Fell more'n an hour ago, and there was no one wi' him.'

'Oh, my child, my child,' cried Clara, 'where can she be?' And she looked at the door of the burning building, as if she even dared go into the jaws of death itself in quest of her child. Captain Norham stepped forward in order to draw his wife back from the crowd. At that moment, a tall man, with uncovered head, and white hair streaming in the wind, dashed in amongst them.

It was Uncle Giles.

Clara was at his side in an instant. 'Oh, Giles,' she cried, with wild eagerness, 'have you seen our Lucy?'

'Yes,' he replied, and there was a kind of preternatural calmness in his demeanour, like that of a man who has strung himself up to the doing of a great action—'yes, I ha' seen her; and wi' God's help I shall see her again.'

And before the onlookers had time to take in the full significance of his words, he had made a dash forward into the red-illuminated space, and disappeared within the doorway of the burning edifice.

Clara, with lightning rapidity of perception, gathered from his words and his mad action that her child was there—within these blazing walls. The knowledge was too much for her already overstrained powers, and she sank back in her husband's arms, like one dead.

Meanwhile, the crowd looked on with breathless anxiety. They had seen the man enter the red doorway, to struggle upwards through the fiery furnace: should they ever see him return? 'The stairs must be burning,' said one. 'It is the foolhardiness of a madman,' said another. And as yet there had been no sign from within the building. From moment to moment the flames belched forth in their red fury, and at other times the whole building seemed to be covered with a cloud of smoke and fire. A few moments more elapsed, and there was heard the crashing of glass in the upper storey, and through

a gap in the curling smoke the white hair of the brave old man was seen at the open window. A half-suppressed cheer burst from the crowd; but the event was too greatly fraught with peril and anxiety for any long indulgence in exultation.

They heard his voice up there at the window. 'The child is here,' he cried; 'but the stair is burning, and I cannot return that way. Send me up a rope.—There!' And he flung a ball of cord from the window out amongst the crowd, retaining the loose end of the ball in his hand. 'Fasten a rope to it,' he shouted again; 'and for the bairn's sake be quick.'

Almost in shorter time than we can tell it, a rope was made fast to the cord, and Giles was drawing it up towards him. The people awaited with breathless suspense till he reappeared at the window. At last—he is there! The child is in his arms, wrapped up in some large covering for its better protection. He leans forward for a moment to watch when the lower windows are clear of flame, and then the child is seen to be descending through the air. Quickly, but yet cautiously, does the old man pay out the rope upon which depends the life of this little burden, so precious to his heart. A score of hands are held up to receive it; and as Lucy is safely rescued and placed in her mother's arms, tears might have been seen on many a sunburned face.

Before this had been more than done, it was observed that the man who had saved the child, high up in that place of danger and death, was attaching the rope to something within the building, and was himself preparing to descend. The first part of the descent on the rope was made, hand over hand, quickly and skilfully, 'as if he had been a sailor all his life.' So said an onlooker. But just when he had reached the windows of the second floor, the fall of some portion of the interior sent a fierce volume of flame with a suffocating rush from the shattered windows, half enveloping the descending man. He was seen to make an unsteady clutch at the rope, but missed it; and, to the horror of the spectators, in another second he had fallen heavily, with a dull thud, to the ground.

'He saved others'—came from amidst the crowd in deep, tremulous tones. It was the Vicar who had spoken, standing there with white uncovered head.

There was mounting and riding in Linlaven that night. A doctor had to be brought from a distance, as also a Justice of the Peace; for Mr Brookes, with lawyer-like instinct, having been informed of all that was known and suspected about the old man now lying once more unconscious on his bed, thought it well to be prepared for any emergency that might arise. If this man, as would appear from what had been seen by Clara and her husband that day, knew 'Arthur Naseby,' a clue might be found to some of the hidden mystery of the lost Arthur Norham's life.

Two hours elapsed before the doctor and the magistrate arrived. The former immediately proceeded to examine into the injured man's condition, and after a time pronounced his injuries fatal. He might possibly live till morning, but could not live long.

Clara stood by the bedside, watching with more than womanly solicitude. This man, whoever he was, and whatever he may have been, had saved the life of her child at the cost of his own; and as she thought of this, and all his tender ways aforetime towards the little Lucy, her heart went out to him in deep love and compassion.

Slowly the hours moved on, one by one, and still the sufferer gave no sign of returning consciousness. The night passed, and the gray dawn began to show itself at the window; whereupon Lawrence Dale raised the blind, extinguished the lamp, and allowed the soft fresh light to enter the room. Gradually a flush of rosy brightness kindled in the eastern sky, and then the sun himself came up over the hills, shedding a golden halo through the curtained window on the pale face resting there before them—so calm, yet so death-like in its rigid lines. Clara thought of that morning when she first looked upon it—not more death-like now than it was then; and a faint hope quivered in her breast for a moment, as she thought it possible that he might yet live. Before she was aware, she found that he had opened his eyes, and that they were resting full upon her.

'Ah, Esther,' he said, in faint tones, 'it be thee. I knowed thou would find me at last.'

Then the eyes again closed, and he lay thus for some time. When he once more looked up, he seemed to recognise his surroundings, and asked in an anxious voice: 'Where be little Lucy? Ha' thou found her?'

'Yes,' replied Clara. 'Thanks to you, Giles, she is sleeping safe and sound in her little crib.'

'Thank Heaven, and not me, missus. It were me as left her in danger; and her death would ha' been another burden on my soul. God knows I ha' enough.'

A look from Mr Brookes to Clara indicated that the time had come when she might now speak.

She went forward to the bedside and said softly: 'Giles, you have twice called me Esther, and I am wondering why.'

A strange look passed over the man's face, as if he were suddenly brought into touch with some great sorrow; but he remained silent. He lay thus for a little; then, as if communing with himself, he said: 'It were true as the preacher said: "Be thou ever so fleet o' foot, the vengeance o' God is fleetier." It ha' come up wi' me now, and I cannot die with the burden on my soul.'

His eyes moved slowly round the room until they rested on Lawrence Dale, and he said to him: 'Thou remembers what was in the paper thou read from, about the *White Horse*, and the finding o' the watch?'

Lawrence nodded, but did not speak.

'Then my time ha' come, and I must tell it all.'

While this was proceeding, Mr Brookes had got paper and ink in readiness; and, although the story was told by the dying man in slow words, and after long intervals, it was to the following effect:

In that year of Revolutions, 1848, this man, who now gave his name as Giles Barton, had

become a member of a society which, although its aims were to benefit the social condition of working men, was in reality a secret and somewhat dangerous combination. The members were enrolled under feigned names; and one of these members was Arthur Naseby. On one occasion, two or three years later, a riot broke out in the street, and Giles was seized among others by the police; whereupon Naseby had headed a rescue party, and carried the prisoners off while on their way to the police office.

It was a time when Government was very severe upon such offences; and Giles and Arthur Naseby fled. Grateful for the liberty which had thus been secured to him, the former advised Naseby to go to Stockborough, in Yorkshire, where he would find refuge with Giles's aunt, Mrs Hales. He himself would take passage in a vessel as a marine engineer, and leave the country for some years. He gave Naseby a letter to his aunt, also a message to his cousin Esther, his aunt's only child. Esther he had loved from his boyhood, though he had never spoken of it to her, for she was well educated, and he but indifferently so; yet he imagined there was a sort of understanding between them, and fondly hoped that, by industry and success, he might some time be in a position to ask Esther Hales to be his wife. The winning of her love had been the dream and the ambition of his life.

He remained abroad for nearly two years, returning to England towards the end of 1853, when he wrote to Arthur Naseby, saying that he was most anxious to visit his aunt and cousin, and asking if it was safe for him yet to do so. He was afraid the police had not forgotten him. In reply he received a letter stating that inquiries had quite recently been made in the town regarding him, and not in the meantime to come nearer Stockborough than the village of Bromley, a few miles to the south. Here he received a second letter from Arthur Naseby, stating that the writer, after an absence of two days, was returning home to Stockborough, and would meet with him on the following evening, after dark, at a place indicated, between Stockborough and the *White Horse Inn*.

'He came,' said the old man, addressing Clara; 'and how can I tell thee what took place between us? All these years, and all the way home, I had been thinking of Esther Hales; I had done well, and my heart was set upon winning her—more'n tongue can tell. And when I met him, and found as how he had married her—the man who had carried my last message to her—I think I mun ha' gone stark mad. I mun ha' threatened him; for he throwed his arms around me to keep me from striking him; but in my madness I shook him off, dashing him to the ground. We were on the road by the river-bank; and when he staggered from me, and fell, he rolled down the bank into the river. The night was dark, and I could not see him, and the river was in high flood. I only heard the splash in the water, and his wild cry.—This brought me summat to mysen, and I saw the terrible thing I had done. I had been the death of the man who had been my friend till this wild love o' mine for Esther Hales came between us.

'I ran wildly along the water's edge; but nowt o' my old mate could I see. I called

for help, but no one came. I said, "I am a murderer!" A great fear came upon me, and I turned and ran off through the darkness, I knowed not where. At last I saw lights. It was the *White Horse*, and I went in. There were voices loud in the bar-room; but no one mun ha' seen me, and I went into the Blue Room. In the light of the fire, what was my horror to find a watch dangling at the end of a bit of chain that had fixed itself to a button of my coat? It was the watch o' the man whose death I had been! I could scarce handle it, for it looked in my eyes as if red wi' blood, and I a'most sickened at the sight of it. I tore it from its fastening, and looked about to see where I could hide it. There was a broken part in the wainscoting, and I dropped it down there, and rushed from the house.

'Ah, that runnin' away was the one great mistake o' my life! But I could not go back to Stockborough, and look on Esther Hales, and know that I had been the death o' the man who loved her—the man, too, as was my friend. I fled; and summer and winter, from year to year, I ha' been trying to fly from mysen ever since. How I wished to die that night in the storm on the Fell! Yet here, in Linlaven, I ha' been a'most happy—happier than I ha' been for all these thirty years; for I found folks as were kind to me; and I loved thee—and thy bairn. But the coat-of-arms on the tombstone in the church gave me a great scare; for they were the same as was on the last letter Arthur Naseby wrote me. And when the story was read from the paper o' the finding o' the watch, I said to mysen: "I will fly from my fate no longer," and was agoin' to tramp to Stockborough, to give mysen up, when the bells called me back. I knowed where thy little Lucy was, and I could not leave her to perish.'

Clara asked him if he had still Arthur Naseby's letters.

He put his hand into his breast and drew out the little leather case. There first fell out the tress of fair hair he had shorn from Lucy's head, which he held out his hand to receive back, and pressed to his lips; and then two letters. Both, the Vicar saw at once, were in the handwriting of Arthur Norham. The latest one, in which he had named the final and fatal place of meeting, was, curiously enough, written on the back of the last letter which the Vicar had written to Arthur before his disappearance, and which had the Norham arms stamped upon it. Arthur's letter was dated, 'Christmas Eve, 1853.'

'That is sufficient,' whispered Mr Brookes to the Captain; 'it forms indisputable proof that Arthur Norham was alive after the time of his father's death. Consequently, he was the heir of the Brathrig estates according to his father's will. We can beat off Linley now, and the estates are safe.'

But Clara heard nothing of this. She was intent upon every word that fell from the lips of the dying man.

'Thou knows now,' he said, 'the story o' my miserable life; and I feel easier in my heart that I ha' told thee of it.'

Clara went close up to him, and took his hand. 'Giles,' she said, 'Esther Hales was my mother.'

'Thy mother?—Ah!' And he looked as if a great light had burst in upon him. 'Thou be Esther Hales's child?—and Lucy be thine?—little Lucy?'

He lay silent for a while, and then said: 'Yes, that be it. I knowed there was summat about thy little Lucy as went beyond me. I see it all now. She ha' Esther Hales's eyes—my Esther's. —And yet,' he added, looking at Clara as if in fear, 'I were the death o' thy father.'

'And you have atoned for it,' said Clara, stooping and kissing the brow of the dying man, 'for you have saved my child—and hers.'

Some hours after, as they stood by the bedside, watching his last moments, there stole along upon the sunbright air the sound of Linlaven bells—not harsh and dissonant, as on yestereven, but soft and melodious, like the winged messengers of peace and forgiveness. Once more, as on that other Sabbath morn, came the clear melody of the bells, filling all the room with their sweet jargoning; and the eyes of the dying man opened, and his lips were seen to move. He was saying 'Our Father!' Was he once more in the old church at home by his mother's knee, with his hand in hers, the sunshine and the pleasant music filling all the place? Again the penitential words are on his lips: 'Forgive us our sins'— And again a great change has come, 'quick and sudden-like.' But not surely this time into Darkness. Rather, let us hope, into the Day that knows no evening, into the Light that has no eclipse.

'UNCLE GILES.' That was the name by which they had known and loved him; it is the name you may still see carved upon the little headstone above his grave; and that grave is in the place which of all places was most pleasant to him—within the sound of 'them beautiful bells,' the Bells of Linlaven.

THE END.

THE MONTH:

SCIENCE AND ARTS.

A VERY interesting paper was recently read before the Institute of Naval Architects by Mr Yarrow, describing a series of experiments which he has lately conducted with a view to trace the causes of vibration in screw steamers. These experiments were made on a fast torpedo boat, the engines of which revolved at the rate of two hundred and forty-eight times per minute. These experiments clearly showed that the vibration, so familiar to all travellers by sea, is not due to the action of the propeller in the water, but is caused by the machinery itself, and by the want of due balancing of the various cranks, piston rods, &c. To prove this, the vessel was deprived of its propeller while held fast by cables in still water, when it was found that the vibration of the hull was communicated to the surrounding water, and the ripple commotion caused thereon was conspicuous enough to be photographed. Mr Yarrow pointed out that by the use of weights and other devices the vibration of the machinery could be greatly reduced.

For a long time the locomotives on our trunk

railway lines have been so constructed that they are able to take up water from tanks placed between the rails even while going at full speed. A method of taking up coal without stopping has been invented in the United States, and the apparatus is to be tried upon one of the main American railroads. A working model has been made, but the details of the mechanism have not yet been published.

A great deal of attention has lately been directed to the question of carrying a life-line ashore from a vessel in distress. It was recently proved on the occasion of a wreck on our southern coast that the rocket apparatus is limited in its range, and this limitation is, of course, increased when the projectile has to force its way against a strong wind. Some successful experiments have been made near New York City with a large kite, which can be folded up when not in use, and will pack into a very small space. The kite is attached to a buoy, and will quickly convey that buoy across the roughest water. By this means it is possible to carry to the shore a very much heavier line than it is feasible to carry from the shore by means of a rocket; and it will readily be seen that the strong wind which forms such an obstruction to the passage of the latter, is a great help in carrying the kite to land.

The reindeer has been introduced into Alaska by the Government Agent of Education there, Dr Sheldon Jackson. It is believed that as this useful animal flourishes so well in Siberia it will soon become acclimatised in Alaska, where the conditions of vegetation, temperature, &c., are much the same. The experiment is most important from an economic point of view, for there are few animals which are more generally useful than the reindeer. Besides being valuable for drawing sledges, it is also greatly esteemed for its meat, its milk, and also for the value of its skin.

The manufacture of an artificial india-rubber has lately been protected by patent. The component parts of this composition are manila gum, benzine, bitumen, and resin oil. It is said that the product obtained from careful admixture and special treatment of these materials gives a substance which possesses all the elasticity, solidity, and suppleness of the finest india-rubber. It can, moreover, like the valuable product which it imitates, be vulcanised in the usual way. It is probable that the new compound will be found valuable to the electrician as an insulator, but we have not heard whether it has yet been tried in that capacity.

Mr H. A. Fleuss, whose life-saving apparatus formed the subject of an article in our columns some years ago, has produced a hand ice-making machine, which was described in a paper read by him at a recent technical meeting of one of the Societies. This machine embodies the principle of the Carré ice-making machine, particulars of which can be found in all the physical text-books. But in Mr Fleuss's machine the mechanism has been simplified and much improved, so that it is possible to procure a small quantity of ice at a few minutes' notice and with very little expenditure of labour. The machine will be invaluable on small yachts and other sailing-vessels which find their way to warm

latitudes. On larger vessels, where steam is available, ice, as is well known, is readily produced by the compression and expansion of air.

From a consular Report we learn that the paper-manufacture is one of the chief industries in Corea. The paper is made in the most primitive manner from the bark of a tree which is indigenous to the country and which is closely allied to the mulberry. The bark is gathered in the spring, and is boiled for a long time in water to which wood-ashes have been added, until it is reduced to pulp. This liquid pulp is placed in vats, and flowed over bamboo screens, which may be taken to represent the wire-work moulds used for hand paper-making in our own country. The web of paper thus formed is placed on a hot floor and ironed by hand. The Corean paper serves a great many useful purposes, for beyond its common use for books and writing, it is made into hats and boxes, is used for covering walls and ceilings, and also finds its way to China and Japan for the manufacture of umbrellas.

One of the New York theatres is employing the incandescent electric lamp in a novel manner, namely, to give the effect of sunrise on the stage. The apparatus consists of a curved screen partly made of gauze, behind which are arranged a number of incandescent lamps, which are so controlled by switches that the light given by them can be made to gradually increase in power. The electric current is also used in the same theatre to give the effect of a bursting shell, the shell itself being made of paper containing just enough powder to give a flash and to destroy it, while a current is simultaneously sent to a gun behind the scenes, which makes the necessary noise for the explosion.

General readers very seldom trouble themselves about the contents of those volumes constantly issued by government authority under the name of Blue-books. A blue-book is indeed looked upon as the synonym of something very dry and uninteresting. Yet these volumes occasionally give details which are worth attention even by the ordinary reader, and particulars of important proceedings are found here which cannot be readily gleaned from any other source. As a case in point, we may turn to the blue-book containing an account of the mines and minerals raised in Britain during the past year. From this we learn that the value of the gold smelted amounted to nearly £14,000, while the silver was valued at upwards of £2000. Iron stands first among the remaining metals, for its produce, after smelting, amounted to nearly £12,000,000. This unfortunately represents a falling-off of £3,000,000 when compared with the amount smelted in the previous year. Next in order comes tin, the value of which is put at £800,000; while the lead raised amounted to £400,000, and the zinc to about half that amount. The figures we have given represent the amounts in round numbers, and they all show a decrease on previous returns, except in the case of gold.

A new kind of miner's pick has been introduced by Messrs Camm, Bagshaw, & Co., of Lead Mill Steel Works, Sheffield. The chief feature of the new tool is that it is not made in one piece like the ordinary pick, but consists essentially of a steel casting which fits upon the shaft, hollowed out at end for the reception of the points or

blades of the instrument. By a clever device these points are perfectly tight when fixed, and they can be instantly released by a small wedge, which the miner can carry in his waistcoat pocket. It is possible to make the points or blades of better steel than when the pick is all in one piece, and these points can be replaced instantaneously when worn out, at small cost. One great advantage in using this new tool is that only one pick need be taken down the pit, while the points for renewal only need to be carried about. It is said that the new pick, weighing two pounds, will do better work than the older kinds, which weigh fifty per cent. more. The cost is about the same as the old pattern pick.

A fresh terror seems to be in store for the unfortunate inmates of the Russian prisons. It is proposed that the cells should be fitted with concealed microphones, so that any conversation can be automatically conveyed by wire to a distant telephone. There is no doubt that this idea could be carried out by means of a sensitive form of microphone. When this wonderful little instrument was first produced by Professor Hughes about fifteen years ago, it was jokingly said that it would be a convenient instrument to hide in the rooms occupied by a Cabinet Council, so that state secrets might be made known to outside ears. We presume that in Russia the use of the instrument will be confined to those prisons which are devoted to the reception of political offenders.

Modern aerial navigation was the subject of a paper recently read at the Royal United Service Institution by Captain J. D. Fullerton. In this paper the question of aerial navigation was divided under two distinct categories—(1) Ballooning, or the use of machines lighter than air; and (2) aëration, or navigation by means of machines heavier than the air. In describing the qualities required in a war balloon the lecturer said that it should be capable of carrying, besides one or two passengers, a supply of explosive shells and a machine gun, and that it ought to be able to travel by mechanical means at such a rate that it would be able to keep up with any war-ship afloat. The great difficulty in ballooning, and also in the construction of any flying-machine, was to obtain a sufficiently light motor. The lecturer concluded his remarks by quoting a statement which has been attributed to Mr Maxim, who is now engaged in constructing a flying-machine on a very large scale, upon which he has already expended about £10,000. 'If I can rise from the coast of France, sail through the air across the Channel, and drop half a ton of nitro-glycerine upon an English city, I can revolutionise the world. I believe I can do it if I live long enough; if I die, some one will come after me who will be successful if I fail.'

In the recent Report of Her Majesty's Inspectors of Explosives for the past year, two samples of gun-cotton were referred to, one of which had been under water for sixteen years, while the other had been buried under ground for twenty years. Both these samples were in fine condition, and as ready for the work of destruction as they were on the day of their manufacture. This shows that gun-cotton prepared with care is one of the safest explosive agents which can be employed. The fact alone that it can be

kept in a wet condition, and can, by special appliances, be exploded while wet, but is explosive unless those particular means be adopted, is sufficient to show that it can be stored with the greatest safety.

Some wonderful results with regard to potato culture have been obtained by a gentleman-farmer in France. This farmer, who is also a distinguished chemist, has been, according to a recent Consular Report from Nantes, for some time past conducting experiments with potatoes, with the remarkable result that he has succeeded in securing the enormous return of forty-two tons per acre. The plan he adopts is to carefully select the seed and to use only the best and soundest tubers. The ground is dug or ploughed to a great depth and is well manured. Before planting the seed potatoes, they are soaked for about twenty-four hours in a mixture composed of saltpetre and sulphate of ammonia, six pounds of each salt to twenty-five gallons of water. After this soaking, the tubers are allowed to drain, and they then stand for twenty-four hours longer, in order that the germs may have time to swell.

The same Report tells us that last year's potato crop in France was, owing to the unusual dryness of the season, below the average. Whenever disease showed itself, a dressing was used, consisting of two pounds of blue vitriol and four pounds of lime to twenty-five gallons of water. For preserving potatoes during the winter, it is recommended, after picking out the diseased tubers, to store the sound ones in a dry building or cellar in a heap about three feet deep. The place should be well ventilated; but in cold weather the doors must be kept closed, and the potatoes must occasionally be stirred about.

In the course of a discussion which took place recently after the reading of a paper at the Society of Arts, Mr J. Hughes referred to the composition of Nile mud, the fertilising value of which has always been regarded as being so great. Samples of this mud he had, some years ago, had occasion to analyse, and he found two special points about it which were not generally known: one of these was that the water was remarkably soft, and the other that it contained a considerable amount of nitric acid. The mud, in fact, was a complete manure, containing all the essentials for the food of plants in a very fine form, which alone was a great advantage.

Some good practice has recently been made with the new magazine rifle, about which weapon such unsatisfactory reports were circulated a few years ago. The gun was employed experimentally at the Hythe School of Musketry, and it was fired with smokeless powder, at a body of dummy figures, at a distance of eight hundred yards. The number of hits was eighteen per cent., which speaks well for the new arm, when it is remembered that it is a well-ascertained fact that in warfare not more than one per cent. of the bullets fired do any damage whatever. In testing the new rifle against the old one fired with black gunpowder, the value of the new explosive was seen to great advantage; the smoke emitted from each rifle being only about as much as would proceed from the end of a cigar. A distinct advantage would accrue to troops under such conditions, as their place would not be readily

discernible by a distant enemy, and, therefore, practically they would remain for a long time undiscovered.

Among the most interesting things shown at the recent successful Naval Exhibition in London was the very beautiful model of Nelson's celebrated flagship, the *Victory*. This model, although full size, was not a complete representation of the old vessel, the original of which is preserved at Portsmouth Harbour: it was, indeed, but the hulk of the ship, and so far was very completely carried out. It has now been determined that this same model shall be completed by adding to it every detail of the spars and rigging of the old ship, and in this restored state it is to be exhibited at the World's Fair at Chicago.

Another vessel of far different kind is being modelled for the same Exhibition at Cadiz, under the auspices of the Spanish government. This is to be a full-sized model of Columbus's ship, the *Santa Maria*, which carried the famous explorer to the western world. A gigantic statue of Columbus is also to be shown at Chicago, and this monument will furnish a design for souvenirs of the exhibition.

Dr Colin, a French army surgeon, has been studying the effect of regular marching upon soldiers, and he asserts that the regularity of the step causes a shock to the brain and the bones, which will often break down the strongest men. This shock is repeated forty thousand times in a fair day's march, and, therefore, it is productive of far more wear and tear to the brain and body than the irregular step usually adopted in taking mere walking exercise. The use of a rubber heel for military boots is found to give partial relief.

The beds of onyx in Arizona are of such vast extent that several car-loads are shipped daily from one mine. This mine is said to represent an almost solid body of the beautiful stone, measuring one mile by a mile and a half in area. A piece of onyx, the largest ever dug, was recently removed from the mine, which measured twenty-three feet by ten feet, and twenty-six inches thick. The Arizona onyx is finer than the Mexican, and will take a very high polish. It is shipped to Chicago, New York, and other cities, where it is used for table-tops and all kinds of other ornamental purposes.

It is announced from Tunis that excavations are now being made in the famous two-headed hill mentioned by Virgil, which hill is situated about eight miles from Tunis. Many interesting remains have already been unearthed, and it is confidently hoped that better will follow. A temple of Baal Saturn, which has been almost entirely laid bare, is attracting particularly the attention of the French archaeologists, because of its peculiarly interesting statues and bas-reliefs. The building is situated at an elevation of over sixteen hundred feet; and this is another proof that the Carthaginians practised their religious ceremonies on hills. On all the statues of the gods to which the temple is dedicated the names Baal and Saturn are found together, which would seem to indicate that to flatter their Roman conquerors the Carthaginians had added to the name of their chief god that of the highest Roman deity. Unfortunately, the statues found are only

torsos. Urns and small lamps bearing Christian emblems, and small coins of the third and fourth centuries, have been found. The excavations will be continued under the direction of the French archaeologist, Monsieur Toutain.

A WINTER'S TALE.

WE were watering the oxen at the well—Douglas and I—smoking and talking as we watched the cattle drinking and sniffing between each bucketful with a lazy satisfaction peculiar to their kind, and then carefully knocking over the pails with their noses after every drink. When I reflect on the number of pails Brandy and Soda broke in a year by these and other means, it is a wonder to me now that we made out as well as we did at first with our farming operations.

Douglas was a Scotch Canadian, up from the Portage on a visit to some friends, but an old-timer who knew the North-western prairies from Winnipeg to the Rockies, and from Prince Albert to the Moose Mountains, as well as the Red Men themselves.

We were sorry to hear from him that the Indians had prophesied an open winter, for we knew that they seldom blundered as to weather. Open winters, he continued, were a nuisance and hard on axles, for they meant severe frosts and little snow, with frequent heavy thaws—a state of affairs that would not admit of running sleighs successfully, and knocked wagons to splinters. Still the Indians had foretold it, and—at that time—I agreed with him that it was hopeless our trying to learn anything that *they* did not know about the weather; about hunting, fishing, and trapping; the operations of nature; the habits of bird, beast, and fish, and such-like occult arts and sciences.

But when spring came and the clang of the geese echoed on river, lake, and slough (Canadian pronunciation 'Sleugh'), and the long-drawn caw of the crow as he loafed across country resounded down the valley; and the young poplars and the willows, the saskatoon and all wild fruit-trees seemed to vie with one another in the race of growth, I began to wonder to myself what a hard winter was like, if the last six months represented an open one.

About the middle of October 1887 the 'Colonel' and I left our temporary winter-quarters a short distance from Castle Avery, to go down with the oxen and wagon to Birtle to enter for our land, and lay in stores and clothing for the winter. We started one day after dinner, travelling the twelve miles to Shellmouth before supper, and staying there till morning, covered the fifty miles thence to our destination in the course of the next two days.

We entered for our homesteads, and having attended to other necessary business, made all haste to get back, for the weather was wild and threatening, and the hard state of the trails and frequent snow-showers made our mode of progression unpleasant in the extreme; though on other matters we had no anxiety, as we had left everything at the ranch in care of our good friend Leslie.

We did well to hasten, for on the night of the 22d there was a heavy snowstorm, and the

mercury suddenly fell to fifteen below zero. The next day, Will Jameson, Jim Burt, and I broke the ice at the North Crossing of the Assiniboine, and made our way over the river in the boat, because we were afraid that the comparatively thin crust of ice would not bear us. I remember the occasion well, for Jameson and I stood on the south bank for about twenty minutes, shouting in the teeth of a bitter wind, to attract the attention of Burt's folks on the other side; and had not Burt come out by chance, we might have been standing there yet, for all the good our shouting did. After spending another quarter of an hour breaking the ice, Burt finally succeeded in getting across and taking us aboard the old second-hand and leaky egg-box that did duty for a boat; but there was so much water in it that I quite spoiled a brand-new pair of Indian moccasins I was wearing for the first time.

I don't think I shall ever forget Burt's crossing of the Assiniboine. I was telling him only the other day I intended making it figure in the first story I tried to write; and here it is. I have never yet crossed at this spot, owing to the wretched means of transit, without getting wet. As a general rule, of the two making the passage in the boat the passenger has to bale for dear life; and the ferryman for the time being has to pull like a Trojan to get across without egg-box and all going under; and when the river is high and running like a mill-race, it would be almost exciting if it were not so confoundingly damp. Well, the ice is getting pretty thin now, being early spring, and last night when I was taking Jimmy's mail to him, I suddenly landed up to my waist in a hole against the north bank, where the sun strikes at noonday. Luckily, the house is not more than two hundred yards away; so I soon obtained a change of clothing, and, not altogether relishing the idea of another bath in ice-cold water and after dark, I stayed at Burt's all night; but before I go over there again I shall insure my life. But this is all by the way—I must get back to my 'Winter's Tale.' A few days after our crossing in the boat, the ice was strong enough to bear a team, and remained in a state of rock-like solidity till the middle of April 1888, when the Martins, on the way back to their homesteads in the West, after wintering in the valley, found it strong enough to sustain the weight of the fifty head of cattle they took with them. It was indeed a long and weary winter.

Snow fell pretty often during November and December, and on and off in that time the Colonel and I were busy getting home the cattle and 'fixing-up' our houses and stables.

Before Christmas we registered fifty-seven degrees of frost; but on one occasion the wind blew from the west with a warmth that strongly resembled the Chinook (the name applied to the westerly wind that frequently springs up in that section of the North-west that lies near the Rocky Mountains, where it has its origin, and has the peculiar effect of raising the temperature from often below zero to above freezing-point in a few hours, melting the snow, and inducing an almost spring-like warmth), that so often prevails at this season of the year nearer the Rocky Mountains. On Christmas Eve and Christmas Day the snowfall was incessant; and then the fierce

Manitoba winter shut down with a snap, and for nearly four months blizzards, forty below zero, and snowstorms, followed one another with a regularity and pertinacity that became monotonous; while up to the end of May we did not experience more than three weeks of pleasant weather.

Christmas Day was the jolliest I had spent in the country since I left home. The Colonel's plum-pudding was a triumph of culinary art; while my beef-steak pie was as dismal a failure. I shall always believe it was his fault for leaving the oven door open while I went up to the post-office for our letters.

Leslie and Bickford came up to help us to eat the good things—at least the roast pork and pudding, for I had to devour every scrap of that steak pie myself. I had made enough for four men with appetites in proportion to the time of year; so I was quite a while performing the feat, and the number of times that pie appeared on the scene during the rest of the winter was wearisome in the extreme. The only drawback to the glory of the feast was the want of flavouring with the pudding—that kind of flavouring that goes very well with a pudding, and is not wholly unappreciated without.

After dinner or supper—it came off at five P.M.—we had a little music and singing, *Nancy Lee*, and the like, accompanied by Leslie's concertina. About half-past ten Bickford decided to go home, in spite of our urging him to stay till morning; and the last I saw of him that night was being pitched out of the saddle over blind Poll's head; but the snow was so deep that he sustained no damage. In some respects, indeed, it was rather an elevating end to a pleasant evening, but I myself prefer alighting from the saddle in a more deliberate and less energetic manner.

Two or three days after Christmas, I was helping Leslie to thresh; but what with ice and barley beards, my spectacles became so misty that about all I could see was the way to the house, whither I retired and thawed the glasses out. It was wonderful the number of times I had to do this in the course of the day.

During the rest of that week I helped the Colonel to get in supplies of wood and hay; and on the last day of the year went down to Shellmouth with the Castle Avery mail. The trails were bad; but with a good hand at the reins the ponies had to get there, and in spite of the drifts we hardly broke the trot the whole twelve miles. Arrived at Shellmouth, I met the 'Skipper,' and together we went out to his place (Trincomalee), where I stayed ten days; but as there was not employment for more than one, I was not overworked, and in fact grew restless for want of something to do, and longed to be out of doors to do it. But the time was near at hand when I was only too glad to remain in the house. On the 10th of January the Skipper drove me home, and never shall I forget that drive.

The thermometer registered twenty-five below zero when we started at noon, with a biting north-westerly wind; but the day was fairly bright and clear. We went a mile and a half out of the way to pick up Blanc, and then pulled out for Castle Avery and home; and though we were behind as good a team as there was at the time in this section of the country, it took us nearly five hours to travel the thirteen miles.

Nor were we exactly prepared for what was in store, for with the exception of some straw at the bottom of the wagon-box, which was mounted on sleighs, the horse-blankets, and Blanc's ox-hide, we had no suitable covering to protect us from such intense cold. As it was, the trail was hardly ever visible between Blanc's Bluff and Castle Avery. For a few minutes the horses would find it below the drift; the next instant, in their endeavour to follow it, they would mount miniature walls of snow, caked hard enough to bear the weight of the 'whole outfit' for a few yards successfully; suddenly, the treacherous crust would crack, and, slipping and plunging, now on the trail and now off, with one runner cutting nearly to the ground, and we ourselves in danger of being pitched out over the side, they toiled painfully and gallantly forward, the Skipper giving them their heads and constantly cheering them to further efforts—and they responded to the call. All the time, the wind, as if delighting in our helplessness, swept down and smote us with an icy keenness that made us curl up and shiver and chilled us to the marrow.

Once clear of Hamilton's Lake, the worst was over; and as we neared Castle Avery and the more wooded country, the edge was somewhat taken off the blast, and we felt cheered at the prospect of getting through in safety. But our destination was two miles beyond the Castle, and though we were sure of a kindly welcome and thaw-out within its hospitable walls, we, as we passed, merely dropped Blanc, who was bound thither, and never drew rein till we reached home. Fortunately, none of us were frozen, but stiff and weary from the exposure, the Skipper and I were able to eat but a morsel of supper. After seeing that his team and the cattle were comfortable for the night and taking a few whiffs, we turned in under all the blankets we could find, and awoke none the worse next morning for all we had gone through.

During the night the wind shifted to the opposite quarter, and when I bade the Skipper and the Colonel—whose turn it was now to go visiting—good-bye, there was a raging snow-storm from the south-east, that increased in intensity and vigour all day, continuing till about midnight, when the snow ceased, and the wind veered round again to the north-west, ushering in the direful blizzard of Thursday, January 12, 1888, disastrous alike to the lives of man and beast from the Mackenzie to Southern Iowa, while it was felt, more or less, right down to the Gulf of Mexico.

And yet the tale of frozen human corpses to be found during the next few days in this little understood and much abused province of the Great Lone Land might have been counted on one's fingers—a fact which will compare favourably with the havoc and distress wrought by the same tempest in the United States.

While it lasted, the maximum temperature for forty-eight hours was twenty-eight below zero, and the minimum at night-time forty-two below. The cattle and I kept warm and snug; but on the first day the pipe of the heating-stove in my bedroom was burned out and rendered useless; and for ten days I was obliged to live in the kitchen, where for a time I was a little crowded,

since Bickford, who lived only half a mile away on the river-bank, found his shanty too cold to remain in, and therefore came and stayed with me, bringing a friend or two with him. Indeed, the most serious matter was the hay running short. I did get a small 'jag' on the Friday from Bickford's nearest stack, and on my way back 'dumped' it, sleighs and all, in a gully near the house. But with the help of ropes and logging-chains, and a good steady pull, and no jerking, from Brandy and Soda, I succeeded in righting and getting the load home with no worse result than a frozen nose for myself. But alas! for the next two nights I had so many four-footed visitors as well, in the shape of a neighbour's horses I was temporarily accommodating, that soon there was but little of the jag left. However, Sunday falling quite calm, enabled me to fetch a good load, and from that time till the end of winter the supply of hay was well maintained.

The blizzard fairly over, we entered upon a short spell of steady cold, but delightfully fine and crisp weather, such as, I believe, is only to be found in these latitudes. From the instant when the night began to wane before the softly stealing dawn, when the first light touch that told of the nearing of the sun rifted out over the land in gleams of faintly roseate hue, all through the short day till the last of the afterglow, reflected in the eastern sky, slowly died away, the hours were full of sunshine and brightness, unflinched by cloud and unruffled by the slightest breeze. And the daylight had scarce left us, ere, night after night, the Northern Lights, like giant torches pointing the path to heaven, flashed forth and glinted weirdly, with a radiance that rivalled the glory of the winter's moon, till wooded crest and fertile valley, ice-chained river and glistening lake, homestead and hamlet, were illumined with a more than earthly splendour; and the wolves, as if angered by the flaming brilliancy, howled in dismal and tuneless chorus.

But all too soon we were to experience another series of snowstorms and heavy winds, that lasted till well on to the end of February, though, of course, the temperature became warmer and outdoor work less irksome. But as I continued to 'run the show' single-handed till the Colonel's return, I performed only the most necessary duties, such as tending the cattle, keeping up the stock of wood and fodder—as a substitute for water we melted snow, and the beasts went down every day to the water-hole cut in the river ice—and those odd jobs that always crop up on a Manitoba farm, as elsewhere.

Still I was far from feeling lonesome. Our shanty was on the trail to the lumber camp forty miles north, to the various hayricks in the valley, and to the bush for cutting both logs and firewood, so that friends used constantly to give me a call on their way past with their teams, sometimes remaining long enough to warm and have their meals with me, or perchance staying all night.

When the worst of the weather was over, the Colonel returned, and was shortly followed by Boffin and Rumbles, who, coming up from the timberless country some miles to the south of Castle Avery, elected to live with us while cutting a set of stable logs. We were a jolly party.

Besides the Colonel—whom I was glad to welcome back—and our two friends, there was Leslie, who came over day by day to hew the logs as they were cut, and a pretty regular stream of the wayfarers before mentioned. So that when the day's work was done, the dishes washed, and the cattle fixed up for the night, we had plenty of fun before we turned in. We went to bed early, for the work was more trying than even in mid-winter. The very warmth of the days caused us to get wet through from the knees downward in the melting snow, and this was followed by a sudden chill that came as soon as the sun began to sink, with the result that our trousers and felt boots were frozen as stiff as boards, which made us glad enough to come in to supper and the welcome warmth of the stove.

With the departure of Rumbles and Boffin after a fortnight's visit, and the completion of our own work in the bush, the Colonel and I began throwing down Benson's house, which we had bought, preparatory to hauling the logs it was built of to our homesteads, only leaving the work to help our neighbours with their house-raising, which came off as soon as the softened state of the snow permitted of turning up the earth sufficiently to lay the corner stones. These house-raising frequently gave us heavy, but by no means unpleasant work, when we all pitched in with a will—contented in the knowledge that we were helping our friends, and could count on their assistance at some future time for any like work that we might wish to undertake for ourselves.

We attended the first of these bees about the middle of April. Bickford was putting up a new stable, and I remember what a task it was to lift the heavy twenty-five feet ridge-pole into its place.

It was very warm in the sun, though the snow was still quite deep, with hard frosts at night, and we were looking forward to the advent of spring, for though on April 5th we experienced a fearful snowstorm, during the continuance of which I had to dig away the drifts from the stable doors three times, the geese had returned on the 7th, and their welcome cry was a sure forerunner of that grand summer weather which came at last, though slowly and reluctantly.

M O R N I N G.

THE tide of human life ebbs and fro,
For night and sleep's forgetfulness are past,
And toiling men awake to come and go,
Upon the turmoil of a city cast.
Afar from ways that breathe of sordid care,
Of aching hearts, and many a life forlorn
In weary want, I turn my sleepless eyes
To where the maiden Morning's smiles are fair,
By rippling streams beneath unsullied skies,
Where winds come murmuring through the balmy air
With sound of angels' wings in Paradise;
And still beyond, where blossoms have no thorn,
And souls no striving; shades of grief and woe
Lost in the glory of Eternal Morn.

MARY CROSS.

Printed and Published by W. & R. CHAMBERS, Limited,
47 Paternoster Row, LONDON; and EDINBURGH.